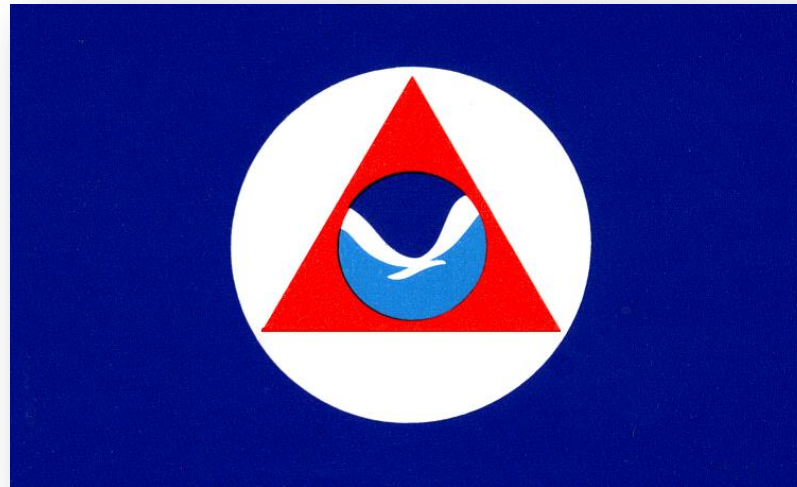


# **NOAA's Office of Marine and Aviation Operations (OMAO) 101 2015**



For future questions and information on OMAO and the NOAA Corps, please contact Tim Bagley in NOAA's Office of Legislative and Intergovernmental Affairs – [timothy.bagley@noaa.gov](mailto:timothy.bagley@noaa.gov).

Copies of the monthly **NOAA Fleet Update** may be viewed and downloaded at <http://www.legislative.noaa.gov/>.



# Director, OMAO and the NOAA Corps



**Rear Admiral David A. Score (2 star)**  
**Director, NOAA Commissioned Officer Corps and**  
**Office of Marine and Aviation Operations (OMAO)**

As Director of the NOAA Corps and OMAO, Rear Admiral (RADM) Score is responsible for the safe, efficient and effective operation of the agency's fleet of research and survey ships and aircraft, as well as guiding the 321 commissioned NOAA officers and approximately 1,000 civilian personnel assigned to OMAO.

RADM Score previously served as Deputy Director of the NOAA Corps and OMAO's Deputy Director for Operations. Earlier assignments include: Director of OMAO's Marine Operations Centers, which oversees all NOAA ship operations, and Commanding Officer of the NOAA Marine Operations Center-Atlantic in Norfolk, Virginia. Before directing NOAA's Atlantic fleet, RADM Score commanded NOAA Ship *Gordon Gunter*, which conducted key research missions during the BP *Deepwater Horizon* oil spill response.

RADM Score's full bio may be found at  
[http://www.oma.noaa.gov/bio\\_noaacorps\\_oma\\_director.html](http://www.oma.noaa.gov/bio_noaacorps_oma_director.html).





# Deputy Director for Operations and Deputy Director of the NOAA Corps



**Rear Admiral Anita L. Lopez (1 star)**  
**Deputy Director, NOAA Commissioned Officer Corps and**  
**Deputy Director for Operations, Office of Marine and Aviation**  
**Operations (OMAO)**

As Deputy Director, Rear Admiral (RDML) Lopez is responsible for the direct leadership and management of program and business operations, providing for the safe, efficient and effective operation of the agency's fleet of research and survey ships and aircraft, as well as the management of the NOAA Corp's 321 commissioned officers and approximately 1,000 civilian personnel assigned to OMAO.

RDML Lopez has over nine years of sea experience sailing on eight NOAA ships. Ashore, RDML Lopez has held positions in leadership, management, staff and operational billets at NOAA headquarters, the Pacific Marine Environmental Laboratory, the National Marine Mammal Laboratory, the Marine Operations Center – Pacific, and as the Executive Director to NOAA's Deputy Under Secretary of Operations in Washington, DC.

RDML Lopez's full bio may be found at  
[http://www.oma.noaa.gov/bio\\_maoc.html](http://www.oma.noaa.gov/bio_maoc.html).







# OMAO

*Providing environmental intelligence for a dynamic world.*



- The personnel, ships, and aircraft of NOAA play a critical role in gathering environmental data vital to the nation's economic security, the safety of its citizens, and the understanding, protection, and management of our natural resources.
- The NOAA fleet is managed and operated by OMAO, one of six Line Offices within NOAA, and is comprised of civilians, mariners, and officers of the NOAA Corps - one of the seven uniformed services of the United States.
- NOAA's roots trace back to when President Thomas Jefferson ordered the first comprehensive coastal surveys. Those early surveys ensured safe passage of ship-borne cargo for a young nation.
- As the needs of the nation have grown, so too have OMAO's responsibilities.



Executive Affairs Division  
Safety and Environmental Compliance Division  
Resource Management Division  
Platform Acquisition Division  
Information Management Division  
Planning & Performance Management Division  
NOAA Dive Program

Director, NOAA  
Corps & Office of  
Marine and  
Aviation Operations

Commissioned Personnel  
Center (CPC)

Fleet Standardization  
Office

Deputy Director for  
Operations, OMAO  
& Deputy Director  
NOAA Corps

Aircraft Operations  
Center  
(AOC) – Tampa, FL

Marine Operations  
(MO)  
– Newport, OR

Marine Operations  
Center- Pacific  
Islands  
(MOC-PI)  
– Honolulu, HI

Marine Operations  
Center-Pacific  
(MOC-P)  
– Newport, OR

Marine Operations  
Center-Atlantic  
(MOC-A)  
– Norfolk, VA



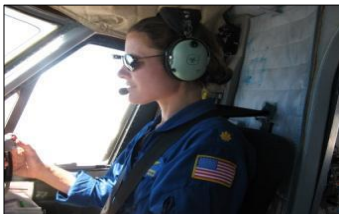


# OMAO Personnel



The personnel of OMAO are a diverse, highly skilled, adaptable workforce with an authorized strength of approximately 1,100 employees, that includes six personnel systems and five employee unions:

- GS/CAPS civilians and SES (1) – Primarily land-side mission support, platform acquisition and maintenance, resource management, and administration.
- Wage Mariners – Majority of the sea going crew aboard NOAA ships.
- NOAA Commissioned Officer Corps
  - NOAA Corps officers serve in OMAO's operational and administrative leadership positions at sea, in the air, and ashore, as well as leadership positions throughout NOAA and assignments with other federal agencies and institutions.
  - U.S. Public Health Service officers provide medical care at sea and medical administrative services ashore.
- Contractors – Specialized support in IT and platform acquisition.





# NOAA Commissioned Officer Corps



The officers of the NOAA Corps are operational leaders:

- As one of the seven U.S. uniformed services, serve with the “special trust and confidence” of the President.
- The NOAA Corps traces its roots back to the former U.S. Coast and Geodetic Survey, which dates back to 1807 and President Thomas Jefferson. In 1970, NOAA was created to develop a coordinated approach to oceanographic and atmospheric research and subsequent legislation converted the commissioned officer corps to the NOAA Corps.
- NOAA Corps officers all have a science or engineering background and provide the technical and operational expertise, dynamic leadership, and breadth of experience to optimize NOAA’s missions through planning, preparation, and execution.
- The NOAA Corps is an integral part of NOAA and with 321 officers, the NOAA Corps serves throughout the agency’s line and staff offices to support nearly all of NOAA’s programs and missions.
- NOAA Corps officers operate NOAA’s ships, fly aircraft, manage research projects, conduct diving operations, and serve in staff and leadership positions throughout NOAA.



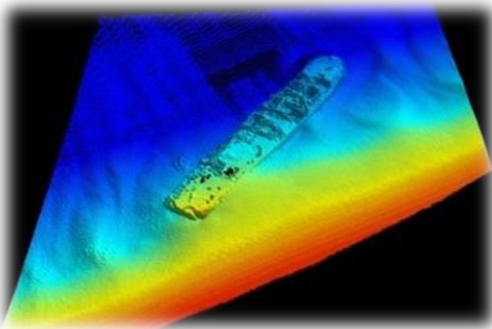




# OMAO Operations



- The OMAO Fleet includes 16 ships – the largest civilian research fleet in the United States - and nine specialized aircraft.
- OMAO's ships support fishery, hydrographic, and marine ecosystems surveys, allowing us to support more robust stock assessments, update our nautical charts faster, and ensure our buoy networks receive the maintenance they need.
- OMAO's aircraft collect environmental and geographic data essential to studying climate change, assessing marine mammal populations, surveying coastal erosion, investigating oil spills, improving hurricane and winter storm forecasts.
- In 2014:
  - OMAO's ships sailed over 400,000 nautical miles and spent over 2,180 Days-At-Sea
  - OMAO's aircraft flew over 4,000 flight hours
  - and more than 80 NOAA divers were trained, to name just a few accomplishments.



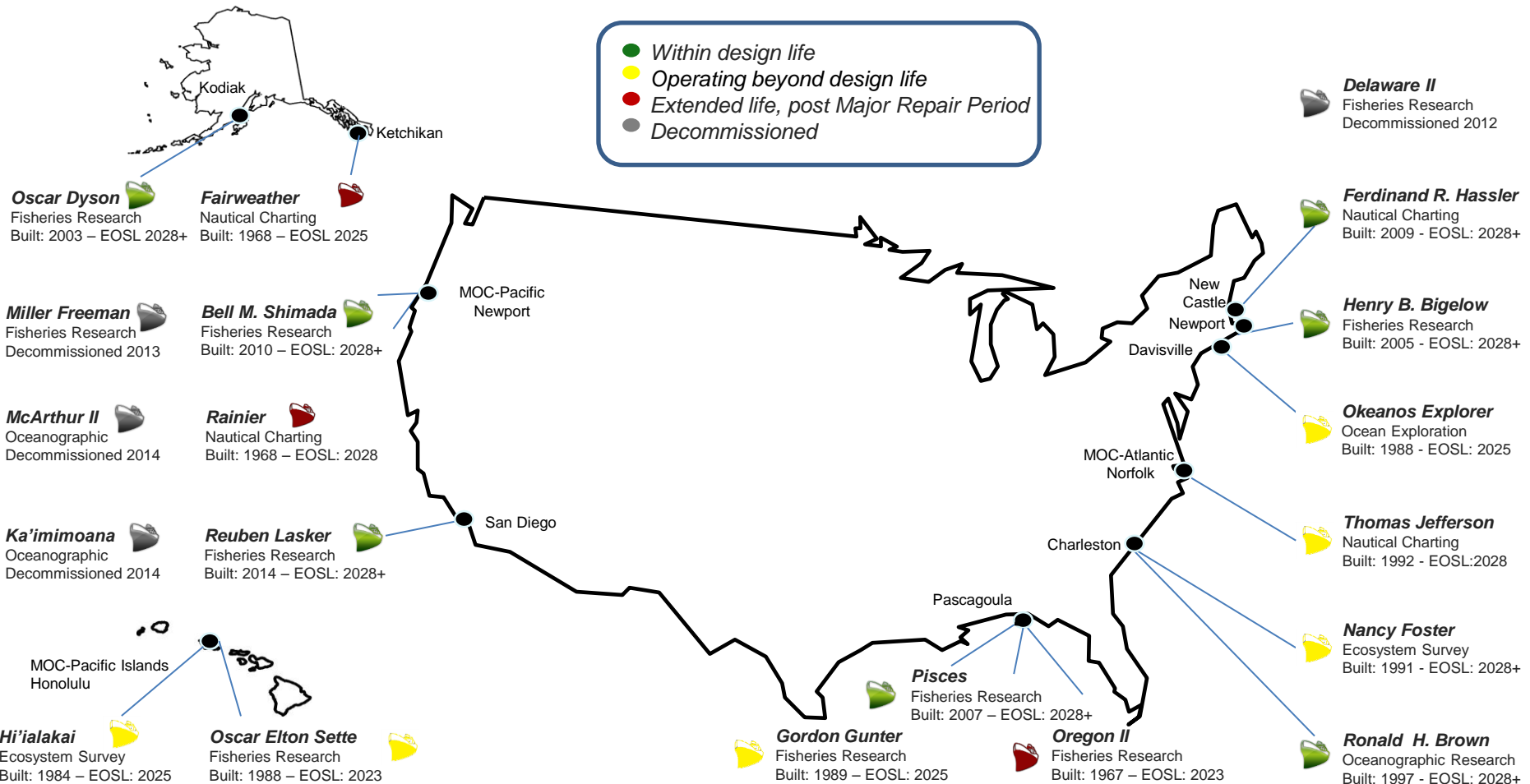


# OMAO's Ships and Centers

The fleet is listed with ship name, homeport location, primary mission, year built, and projected End of Service Life (EOSL).

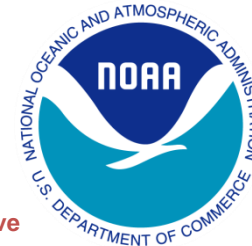
NOAA's ships range in age from one to 48 years old. Out of 16 ships in the fleet, only six are operating within their design life.

By FY2028 the NOAA fleet will shrink by 50% without immediate investment.





# OMAO's Fleet Without Investment



Design and Construction
  First Year of Operations
  Design Life
  Extended Life
  Gap in Capacity
 X = Inactive

		Ship	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
REGION SUPPORTED	Northeast	Ferdinand R. Hassler																	
		Henry B. Bigelow																	
		Okeanos Explorer														X			
		Delaware II		X															
	Southeast	Ronald H. Brown																	
		Nancy Foster																	
		Thomas Jefferson																	X
	Gulf of Mexico	Pisces																	
		Gordon Gunter														X			
		Oregon II												X					
	Alaska	Oscar Dyson																	
		Fairweather														X			
		Miller Freeman	X																
	West Coast	Reuben Lasker																	
		Bell M. Shimada																	
		Rainier																	X
		McArthur II	X																
	Pacific Islands	Hi'iialakai														X			
		Oscar Elton Sette												X					
		Ka'imimoana		X															
		Total Ship Count	17	16	16	16	16	16	16	16	16	16	16	14	14	10	10	10	8





# OMAO's Ships – Sample of Missions



**Exploration and Mapping in the North Atlantic** – The NOAA Ship *Okeanos Explorer* mapped seamounts and canyons in the North Atlantic, of which four seamounts and five canyons had never been explored before.



**Regional Hydrographic Surveys** - The NOAA Ship *Fairweather* conducted hydrographic surveys in Arctic waters, which resulted in the release of the 3rd Arctic nautical chart.

**Tropical Atmosphere Ocean (TAO) Array**- Restored the TAO data availability to over 80% for the first time since December 2011. The TAO array is instrumental early-warning system for the warming and cooling events in the eastern equatorial Pacific, known respectively as El Niño and La Niña.



**Pollock in the Gulf of Alaska** - The NOAA Ship *Oscar Dyson* conducted a Pollock survey in the Gulf of Alaska and Russian waters.

**Marine Debris** - The NOAA Ship *Oscar Elton Sette* conducted a marine debris survey, and removed 57 tons of marine debris from the Northwestern Hawaiian Islands.





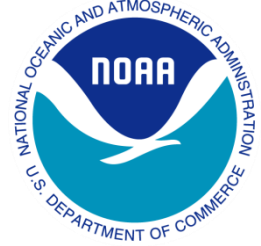
# OMAO's Aircraft Fleet



- Nine active aircraft based at OMAO's Aircraft Operation Center located at MacDill, Air Force Base, Tampa, FL:
  - 2 - WP-3D Orion "Hurricane Hunters"
  - 1 - Jet Prop Commander
  - 1 - Gulfstream IV
  - 4 - Twin Otters
  - 1 - King Air
- Support of NOAA's missions through climate and air quality studies, fisheries and marine mammal observations, coastal mapping, water resource surveys, and hurricane reconnaissance and surveillance operations.
- NOAA's aircraft operate throughout the United States and around the world; over open oceans, mountains, coastal wetlands, and Arctic pack ice.
- The average age of NOAA's aircraft is 30 years.







# OMAO Aircraft – Sample of Missions



**Hurricane Reconnaissance** - NOAA's WP-3D (N43RF) conducted hurricane reconnaissance in the Eastern Pacific out of La Paz, Mexico through a collaboration between OMAO and the Mexican Navy, Air Force and Weather Service.



**Hurricane Surveillance** – NOAA's G-IV (N49RF) supported two last minute deployments to Hawaii for Hurricane Julio and Hurricane Ana.

**Hurricane Research** – NOAA's WP-3D (N42RF) successfully deployed four Coyote Unmanned Aircraft Systems into Hurricane Edouard.

**Steller Sea Lion Survey** - NOAA's Twin Otter (N56RF) conducted a Steller Sea Lion survey in the Southeast, South Central, and the Southwestern areas of Alaska.



**Water Resources in the Northeast** - NOAA's Jet Prop Commander (N45RF) surveyed water resources in the Northeast in the wake of multiple snow storms.

**Coastal Mapping Nationwide** - NOAA's King Air (N68RF) conducted coastal mapping in various locations in the United States and its territories.





# OMAO – Other Programs and Support



## NOAA Dive Program

The NOAA Diving Program (NDP) is the largest non-DoD federal diving program with over 375 active divers.

In addition to 32 sites around the U.S. OMAO operates 15 ships with full diving compliments.

In 2014, NOAA Divers completed over 10,000 incident-free dives with a total of over 6,300 hours underwater.

NOAA has divers trained on mixed-gas rebreathers who are working at depths of up to 330 feet.

## Small Boat Program and Aircraft Safety

OMAO sets policy and provides safety inspections for almost 400 small boats throughout NOAA. OMAO also sets and implements aircraft safety policy for NOAA and our contractors.



## Teachers at Sea

NOAA's Teacher at Sea program provides a unique environment for learning and teaching by sending kindergarten through college-level teachers to sea aboard OMAO's research and survey ships to work under the tutelage of scientists and crew, including officers of the NOAA Commissioned Officer Corps.

Since its inception in 1990, the program has enabled more than 600 teachers to gain first-hand experience of science and life at sea.

## Unmanned Systems Support

OMAO and the NOAA Corps provide a number of services to NOAA and NOAA's Partners to support unmanned systems from launch platforms, to technical support, to pilots.





# OMAO's NOAA Partnerships

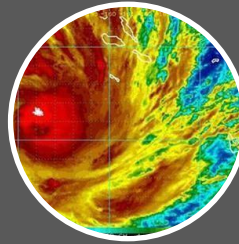
*OMAO personnel and assets work with and serve all across NOAA Line Offices.*



**National  
Weather  
Service  
(NWS)**



**Office of  
Oceanic and  
Atmospheric  
Research  
(OAR)**



**National  
Environmental,  
Satellite, Data,  
& Information  
Service  
(NESDIS)**



**National  
Ocean  
Service  
(NOS)**



**National  
Marine  
Fisheries  
Service  
(NMFS)**





# OMAO's NOAA Partnerships

*OMAO personnel and assets work with and serve all across NOAA Line Offices.*



**National  
Weather  
Service  
(NWS)**

## Did you know?

Using our aircraft (P-3, G-IV, Jet Prop) and ships, OMAO supports NWS missions such as:

- Hurricane Track and Landfall Predictions
- Winter Storm Intensity and Tracks
- Snow Surveys to determine flooding (Winter Storm Juno)
- TAO Buoy Maintenance



**Office of Marine and Aviation Operations**



# OMAO's NOAA Partnerships

*OMAO personnel and assets work with and serve all across NOAA Line Offices.*

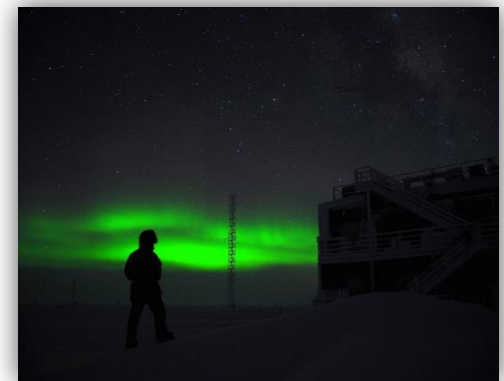
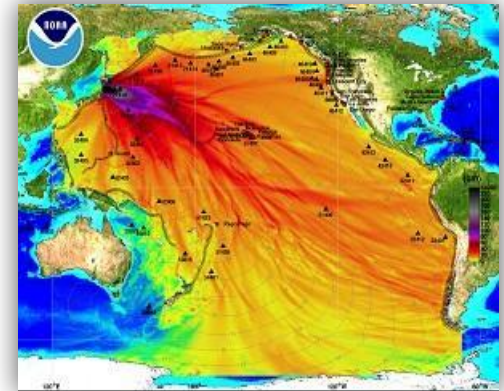


**Office of  
Oceanic and  
Atmospheric  
Research  
(OAR)**

## Did you know?

Using our aircraft (P-3) and ships, OMAO supports OAR missions such as:

- Blue Water Oceanographic Research
- Hydrothermal Vent Studies
- Air Quality Studies
- Atmospheric Rivers Studies



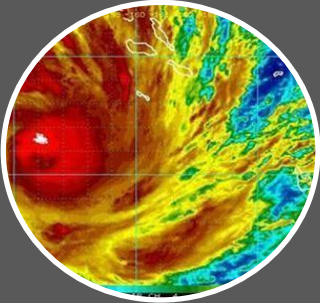
**Office of Marine and Aviation Operations**





# OMAO's NOAA Partnerships

*OMAO personnel and assets work with and serve all across NOAA Line Offices.*

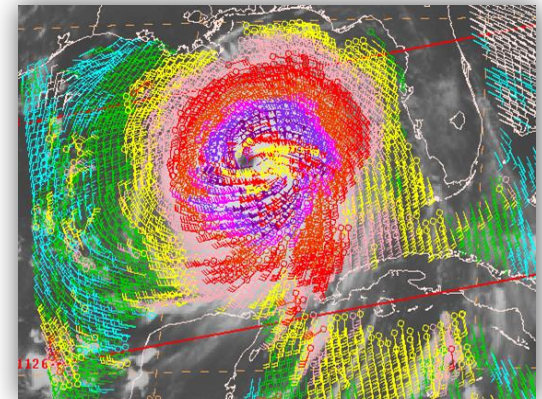


**National  
Environmental,  
Satellite, Data,  
& Information  
Service  
(NESDIS)**

## Did you know?

Using our aircraft (P-3) and ships, OMAO supports NESDIS missions such as:

- Ocean Winds – Airborne project to improve the understanding of wind data from existing satellites
- VIIRS – Validation and calibration of ocean color sensor missions



**Office of Marine and Aviation Operations**



# OMAO's NOAA Partnerships

*OMAO personnel and assets work with and serve all across NOAA Line Offices.*

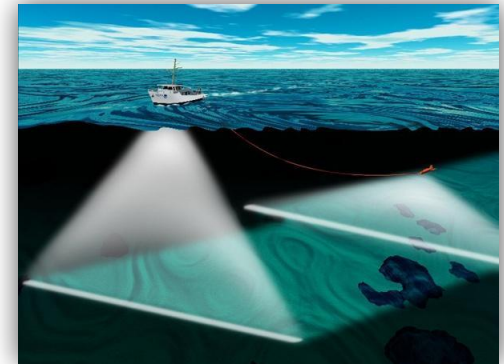


**National  
Ocean  
Service  
(NOS)**

## Did you know?

Using our aircraft (King Air, Twin Otter, Jet Prop) and ships, OMAO supports NOS missions such as:

- Nautical Chart Data and Aerial, Habitat, Coral Reef Mapping
- Sanctuary Support and Coral Reef Research and Monitoring
- Dive Platforms and Operations
- Gravity Measurements





# OMAO's NOAA Partnerships

*OMAO personnel and assets work with and serve all across NOAA Line Offices.*



**National  
Marine  
Fisheries  
Service  
(NMFS)**

## Did you know?

Using our aircraft (Twin Otter) and ships, OMAO supports NMFS missions such as:

- Fish Stock Assessments
- Marine Mammal Surveys
- Biological Sampling
- Ecosystems Research



**Office of Marine and Aviation Operations**



# OMAO's Federal and External Partnerships

*OMAO and the NOAA Corps provide key services and leadership to a number of federal agencies and external partners to help them meet their mission – and ours - and to better leverage federal resources.*







# OMAO's FY16 Budget Request Highlights



**The FY 2016 President's Budget Request for OMAO is \$400,036,000.** The request makes investments to maintain and expand the NOAA fleet in support of more robust stock assessments, faster updates to nautical charts, and well maintained buoy networks. The program changes noted below are with respect to the FY 2016 Base (= FY 2015 Enacted + Inflationary Adjustments). The FY 2015 Enacted for OMAO was \$242,805,000. Highlights for FY 2016 include:

- **Ocean Survey Vessel (OSV) Construction (+\$147.0M)** - This request will begin development of one OSV, a vessel designed to conduct surveys throughout the U.S. Exclusive Economic Zone. The OSV has a more diverse range of capabilities and functions than other vessels in the NOAA fleet and is capable of meeting a variety of NOAA's missions such as: surveying marine mammal populations; collecting samples and observations to support ecosystem-based management activities; conducting oceanographic and climate research; mapping the ocean floor to update nautical charts; and servicing National Weather Service's buoys. With this investment, NOAA will leverage the Navy's existing Auxiliary General Oceanographic Research Vessel system specifications, which will reduce design risk, provide cost savings, and increase the ability for cross-government research opportunities. Without this investment to retain current mission capacity and expertise, the NOAA fleet will decline by 50 percent from 16 to 8 active ships between FY 2016 and FY 2028.
- **Progressive Lifecycle Maintenance Program (+ \$5.7M)** - The requested increase of \$5.7M will stabilize and improve the material condition of our ships and result in a fleet maintained at a higher state of readiness, an extension of service life, and avoidance of mechanical, structural, and mission equipment obsolescence.
- **Days at Sea** - The total request of \$178.8M supports a total of 3,220 OMAO funded Days at Sea, with a ship utilization rate of about 86 percent, to support critical *in situ* collection of oceanic, hydrographic, and fisheries data.
- **Aviation Operations** - The total request of \$32.3M supports 4,063 OMAO funded flight hours of critical real time observations.







# Helpful Web Links



<http://www.oma.noaa.gov/>

<http://www.moc.noaa.gov/MOC-A/index.html>

<http://www.moc.noaa.gov/MOC-P/index.html>

<http://www.moc.noaa.gov/MOC-PI/index.html>

<http://www.noaa.nmfs.gov/>

[www.facebook.com/NOAAOMAO](http://www.facebook.com/NOAAOMAO)

[www.twitter.com/NOAA\\_OMAO](http://www.twitter.com/NOAA_OMAO)

<https://shiptracker.noaa.gov/>





# NOAA

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